New Species of *Tricarpelema* (Commelinaceae) from Africa and Asia, Including the First Record of the Genus from Africa and a Synopsis of the Genus

Robert B. Faden

Department of Botany, MRC-166, National Museum of Natural History, Smithsonian Institution, P.O. Box 37012, Washington, D.C. 20013-7012, U.S.A. fadenr@si.edu

Abstract. Tricarpelema africanum Faden is described from Central Africa, representing the first African species of this otherwise Asian genus. The species is so distinct that Tricarpelema J. K. Morton subgen. Keatingia Faden is described for it, based mainly on its unusual vegetative morphology. Tricarpelema brevipedicellatum Faden is described from two Vietnamese collections that were previously treated as Aneilema montanum (Wight) Wallich ex C. B. Clarke or Dictyospermum montanum Wight. It differs from all other continental Asian species by its one-seeded locules. A key to all eight named Tricarpelema species is provided, along with a synopsis of the species, including full taxonomy and synonymy. Pollia subumbellata C. B. Clarke var. glabra Hallier f. is a new synonym for T. philippense (Panigrahi) Faden. The following names are lectotypified: T. giganteum (Hasskarl) H. Hara, T. philippense (Panigrahi) Faden, and Pollia subumbellata C. B. Clarke var. glabra Hallier f.

Key words: Africa, Commelinaceae, inselberg, Tricarpelema, Vietnam.

The genus Tricarpelema J. K. Morton was described by Morton (1966) for a single Himalayan species of Commelinaceae that did not fit within his circumscriptions of Aneilema R. Brown or Dictyospermum Wight. Hong (1974, 1981) added two new, closely related species from China to the genus. Faden (1975), in an unpublished Ph.D. thesis, emended the delimitation of Tricarpelema and treated it as a subgenus of Dictyospermum, but he did not publish these changes. Rao (1980) transferred the second Indian species to Tricarpelema. Faden (1991) recognized Tricarpelema as a distinct genus and transferred a species from the Philippines and Borneo to it. A sixth species, endemic to Borneo, was transferred to Tricarpelema in Cowley and Faden (1996). In the most recent account of the genus, Faden (1998) recognized a total of seven Asian species of Tricarpelema, with possibly an eighth, undescribed species in Central Africa. The generic status of the African species remained in doubt. It is described below as T.

africanum Faden. One of the Asian species of Tricarpelema, from Vietnam, was also undescribed. It is described herein as T. brevipedicellatum Faden.

NEW Species of Tricarpelema J. K. Morton

Tricarpelema africanum Faden, sp. nov. TYPE: Cameroon. South Province: Ntem Department, Ebolowa Arrondissement, Village of Meyos, 2°48′N, 11°13′E, alt. ca. 750 m, growing on rocky cliffs in full sunlight, 27 Oct. 1990, Bill [William F.] Keating BK90–23 (holotype, US sheet 1 [US#3216404]; isotypes, K, MO, P, US sheet 2 [US#3216405], YA). Figure 1.

Herba perennis internodiis vaginis imbricatis vestitis. Folia distichia lamina sessili moderate succulenta glanduloso-pubescenti. Inflorescentia thyrsus laxus plerumque complexus, $5-25(-30) \times 4-10(-16)$ cm, axibus sparse glanduloso-pubescentibus. Flores androecio staminum trium posticorum brevius stamine medio antheram plerumque carentem et staminum trium anticorum subaequalis longius composito. Capsulae stipitatae aequaliter trivalvares triloculares loculis 3–5-seminalibus. Semina uniseriata.

Decumbent perennial rooting at the lower nodes; roots thin, fibrous; internodes ± covered by overlapping leaf sheaths, except distally on the flowering shoot, 2.8–6 cm, the basal ones glabrous, the distal ones sparsely glandular-pubescent. Leaves all distichous, or sometimes spirally arranged distally on the flowering shoot, only slightly reduced distally on the flowering shoots, persistent on the old stems, sheaths (0.4–)1–2 cm. glandular-pubescent, ciliate at the apex with similar hairs; lamina sessile, strongly conduplicate when dry, moderately succulent, narrowly lanceolate to linear-lanceolate or lanceolate-oblong, broadest at the base, $4-11.5 \times 1-1.5$ cm, apex acuminate, base rounded, amplexicaul, both surfaces sparsely glandular-pubescent, the adaxial surface more densely so than the abaxial; margins somewhat revolute (at least in dried specimens), scabrid with prickle-hairs (terminology of Tomlinson, 1966), also sparsely ciliate basally with glandular hairs. Inflorescence a pedunculate, terminal and sometimes

Novon 17: 160-171. Published on 20 June 2007.